

# Can We Ease the Financial Burden of Colonoscopy? Using Real-Time Endoscopic Assessment of Polyp Histology to Predict Surveillance Intervals

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## Introduction

Our recently accepted paper delves into the topic of real time endoscopic assessment of polyp histology.<sup>1</sup> The importance of such a topic cannot be underestimated given that Australia has one of the highest rates of colonoscopy per capita, despite this colon cancer is still the second most commonly diagnosed malignancy in our population.<sup>2-4</sup> The majority of polyps diagnosed at endoscopy are diminutive and the risk of advanced features being very low (0.5%) however the cost of resection and histological assessment is substantial.<sup>3-5</sup>

Our study involved a prospective cohort where 94 adult patients were enrolled with 159 diminutive ( $\leq 5$  mm) polyps examined by three endoscopists of varying experience across both the public and private health care systems. The aim of the study was to assess whether predictions of colonoscopy surveillance intervals based on real time assessment of polyp histology was accurate and cost effective. Whilst there is extensive literature on this topic, there is a paucity of data on the accuracy of this technique in the community setting, its reliability in terms of predicting appropriate surveillance intervals and the subsequent financial impact of this technique. By implementing real time endoscopic assessment of polyp histology with the simplified Sano-Emura classification system, the need for formal histological assessment may be bypassed in addition to the requirement of subsequent patient follow up to convey the findings and recommended surveillance intervals. The associated financial benefit to our health system by bypassing outpatient follow up and histological assessment would be substantial as our study demonstrated. Our findings suggest that tertiary care endoscopists could accurately predict diminutive polyp histology and subsequent colonoscopy surveillance intervals with a significant financial benefit across of our cohort of \$ 30058.78 Australian dollars (\$ 319.77 per patient).<sup>1</sup> The simplified classification system used in our study demonstrated a short learning curve across and high levels of accuracy with prediction of appropriate surveillance intervals. We acknowledge that during the study period that the Narrow Band Imaging International Colorectal Endoscopic (NICE) classification system was introduced. However this classification system is significantly more complex than the simplified Sano-Emura system, and has not been generalizable across the community setting in the current literature.

Whilst our study has shown that endoscopists within a tertiary care setting can accurately predict surveillance intervals based on optical diagnosis of polyp histology with the associated benefits to the health system, limitations still exist with its application in the community setting. However we feel that this may improve with further training and high definition colonoscopes.

**Reference**

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